CLAIMS

1. A radial tire having a body ply extending from a tread section to sidewall sections and turned up over bead cores of bead sections to have turned-up portions at both sides thereof; a belt layer wound on the outer circumference of the body ply in a tire circumferential direction; a tread circumferentially wound on an outer circumference of the belt layer; and bead fillers extending from the bead cores radially outward between the sidewall sections and the turned-up portions of the body ply, the radial tire being characterized in that:

the belt layer comprises at least one spirally wound belt layer in which one or plural belt codes coated with rubber are arranged to be spirally wound almost in parallel with the tire circumferential direction; and

the belt code in the spirally wound belt layer is of the property that the increase rate of tensile load to stretch rate is small in the range of a predetermined stretch rate or less but is large in another range exceeding the predetermined stretch rate.

2. The radial tire with the circumferentially wound belt layer as set forth in Claim 1, characterized in that the belt code in the spirally wound belt layer is of the property that the stretch rate is equal to or greater than 0.5 % at the tensile load of 20 N and that the tensile load is equal to or greater than 60 N at the stretch rate of 3 % (preferably, the tensile load is equal to or greater than 30 N at the stretch rate of 1.5 %).

3. The radial tire with the circumferentially wound belt layer as set forth in Claim 1 or 2, characterized in that the belt code in the spirally wound belt layer is made of a hybrid code having a nylon fiber bundle as a core and

also having an aramid fiber bundle twisted therearound.

4. The radial tire with the circumferentially wound belt layer as set forth in Claim 1 or 2, characterized in that the belt code in the spirally wound belt layer is made of a multi-strand steel code which is made by twisting plural steel strands.

5. The radial tire with the circumferentially wound belt layer as set forth in Claim 1 or 2, characterized in that the belt code in the spirally wound belt layer is made of a waved steel code which is made by giving a waving processing to a steel code which is made by twisting plural steel filaments.

6. The radial tire with the circumferentially wound belt layer as set forth in any one of Claims 1 to 5, characterized in that the body ply is arranged to be at least one layer; that body ply codes in the body ply are inclined at an angle in the range of 85 to 90 degrees relative to the circumferential direction; and that the belt layer arranged on the outer circumference of the body ply comprises an oblique belt layer in which belt codes made of steel are arranged to be as one layer and to be inclined at an angle in the range of 10 to 40 degrees relative to the circumferential direction and at least one spirally wound belt layer in which a belt code is arranged to be spirally wound on an outer circumference of the oblique belt layer almost in parallel with the tire circumferential direction.

7. The radial tire with the circumferentially wound belt layer as set forth in any one of Claims 1 to 3, characterized in that the body ply is arranged to be at least one layer; that body ply codes of the body ply are inclined at an angle in the range of 85 to 90 degrees relative to the circumferential direction; and that the belt layer arranged on the outer circumference of the body ply comprises two oblique belt layers in which belt

codes made of steel are arranged to be inclined in the same direction at the same angle in the range of 30 to 60 degrees (preferably, in the range of 40 to 50 degrees) relative to the circumferential direction and at least one spirally wound belt layer in which a belt code made of a hybrid code is coated with rubber and is arranged to be spirally wound on outer circumferences of the oblique belt layers almost in parallel with the tire circumferential direction; and that of the two oblique belt layers, one oblique belt layer is in the range of 40 to 70 % of the other oblique belt layer in width and is circumferentially arranged at the center portion in the direction of the radial tire width.

8. The radial tire with the circumferentially wound belt layer as set forth in Claim 7, characterized in that an organic fiber code made of a hybrid code is coated with rubber and is arranged to be spirally wound between the oblique belt layers and the outer circumference of the body ply almost in parallel with the circumferential direction thereby to form a ply under the oblique belt layers; and that the organic code in the ply under the oblique belt layers is arranged to be densified at shoulder portions on the side edges in the direction of the radial tire width and to be loose at the center portion.

9. The radial tire with the circumferentially wound belt layer as set forth in Claim 7, characterized in that a ply under the oblique belt layers is composed of a waved steel code coated with rubber and arranged to be spirally wound and to be densified between the oblique belt layers and the outer circumference of the body ply at shoulder portions on the side edges in the direction of the radial tire width almost in parallel with the circumferential direction and an organic fiber code made of a hybrid code coated with rubber and arranged to be spirally wound and to be loose between the oblique belt layers and the outer circumference of the body ply at the center portion

almost in parallel with the circumferential direction.

10. The radial tire with the circumferentially wound belt layer as set forth in Claim 7, characterized in that a code which is small in the increase rate of tensile load to stretch rate in the range of a predetermined stretch rate or less but is large in the increase rate of the tensile load in another range exceeding the predetermined stretch rate is coated with rubber and is arranged to be spirally wound between the oblique belt layers and the outer circumference of the body ply almost in parallel with the circumferential direction thereby to form a ply under the oblique belt layers, and that the code in the ply under the oblique belt layers is arranged to be densified at the shoulder portions on the side edges in the direction of the radial tire width and at the center portion, but to be loose at a portion between each shoulder portion and the center portion.

11. The radial tire with the circumferentially wound belt layer as set forth in Claim 10, characterized in that a code which is small in the increase rate of tensile load to stretch rate in the range of a predetermined stretch rate or less but is large in the increase rate of the tensile load in another range exceeding the predetermined stretch rate is coated with rubber and is arranged to be spirally wound between the spirally wound belt layer and the oblique belt layers almost in parallel with the circumferential direction thereby to form a ply under the spirally wound belt layer; and that the code in the ply under the spirally wound belt layer is arranged to be densified at the shoulder portions on the side edges in the direction of the radial tire width and at the center portion, but to be loose at the portion between each shoulder portion and the center portion.

12. The radial tire with the circumferentially wound belt layer as set

forth in any one of Claims 6 to 11, characterized in that both side ends of the spirally wound belt layer cover both side ends of the oblique belt layer.